

ABSTRACT OF THE DISCLOSURE

In a zinc oxide film having a plurality of texture constituents comprised of hills each having structure wherein a first surface borders on a second surface
5 along one curved line, texture constituents in which first surfaces the hills of the texture constituents have have an average angle of inclination in a size within the range of from 30 degrees or more to 60 degrees or less and second surfaces have an average
10 angle of inclination in a size within the range of from 10 degrees or more to 35 degrees or less account for at least a half of the plurality of texture constituents. This enables improvement in characteristics and durability of zinc oxide films used as optical
15 confinement layers in photovoltaic devices, and also enables formation thereof at a low cost.